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13 scaling-related lessons I learned as a software engineer **By Adam Pahlevi Baihaqi**

In software development one of the most important concepts is scalability. In the article the author mentions that the company that he worked for was growing fast, but scaling became a problem. He mentions that at one point the company had an outage and that they had to gear up to ensure that it would not happen again. He gives us some tips about how to approach software that at some point will have to scale up. The author mentions that the software architecture is very important because the system has to be designed to be able to handle requests at scale. Developing small and making it work as soon as possible to check if whether the application will be stable to accept more expectations and make it more robust. Using the same database is a bad practice. It is better to replicate the database and use one for reading and the other for writing. Having two databases no matter how terrible read load is, it won't affect the write, and vice versa. Also that splitting that database is a good practice because it allows parallel accessing. Other three important tips that he mentions were fix the bad queries, do database archival and rotation, and use databases less.

This article relates to the class material because Dr. Huang has taught us the importance of scalability of software. That whenever someone is developing software is best to design its architecture in a way that it will not have a problem scaling.

In my personal analysis, I found that the author brings about a great point when he gives the tips to develop scalable software. I think that those tips are vital to the development of scalable software. In my personal experience, while working in the class project we have used some of the tips mentioned in the article. For example, we have designed the app architecture to be able to scale to any necessary size. I will take into consideration replicating all the databases because users will be reading and writing at the same time and we don't want any outage.